FORT LOUDOUN RESERVOIR - SECTION 26a APPROVAL FOR OPEN CHANNEL MAINTENANCE DREDGING, TENNESSEE RIVER NEAR LOONEY ISLAND, RIVER MILE 643.0 AND POST OAK ISLAND, RIVER MILE 631.8 - REEVALUATED FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Proposed Action and Need

On October 25, 2004, Environmental Policy and Planning signed separate FONSIs for proposed channel maintenance dredging at Looney Island, at Tennessee River Mile (TRM) 643.0 and at Post Oak Island, at TRM 631.8. The proposed dredging sites would be located about 5 miles and 16 miles, respectively, downstream of downtown Knoxville.

In November 2004, U.S. Army Corps of Engineers (USACE) requested that the dredging work be allowed to occur within a mid-June through November (summer-fall) timeframe, rather than restricting dredging to fall or early winter (October-November) as originally planned and described in the FONSIs. Affects on fish spawning, other aquatic fauna and wintering waterfowl and water birds were considerations in regards to the initially proposed timing of the work. Because working in summer could result in greater or different impacts, this reevaluation is intended to capture and explain those effects and their potential significance. This reevaluation considers potential effects of dredging over the 4 to 8 weeks needed to complete activities at both the Looney and Post Oak Island sites.

Impacts Assessment of Proposed Change in Timing of Dredges

In addition to avoiding the late winter-spring time period when effects on fish spawning and waterfowl could be negative, the October-November time frame was originally planned for conducting the dredging because (1) rates of biological activity during this time are lower because of lower water temperatures, and therefore, uptake of metals and other contaminants that might be re-introduced into the water column during dredging would be lower, and (2) under the June 2004 TVA river operations policy, flows through the reservoir would be expected to be relatively low during this period. During this time of year, rainfall and runoff are usually low and upstream reservoirs have already been lowered substantially to provide flood storage capacity.

Compared to the October-November time frame, dredging from mid-June through September when the water is warmer could result in greater impacts to aquatic fauna from uptake of contaminants dispersed into the water column. Aquatic organisms have higher rates of metabolism in the warmer waters, increasing uptake rates.

Under TVA's river operations policy, the potentially greater impacts on aquatic life from working during the warmer months may be offset because summer pool elevation is higher, more water is in the system and the mid-June and July flows are expected to be even lower than in October and November. This would further reduce dispersion of sediment plumes, resulting in a smaller area of the reservoir being affected. Also, because working conditions may be more favorable from mid-June to late August than in fall or early winter, (e.g., longer daylight hours and warmer temperatures) dredging crews could operate for longer periods each day (including weekends), thus shortening the duration of dredging operations. This would reduce biological exposure to and potential uptake of sediment contaminants.

Dredging during the mid-June to late August time period would avoid high weekend recreational boating traffic associated with University of Tennessee-Knoxville football games. Wakes associated with these typically larger recreational boats in the "Volunteer Navy" in September and October could increase the dispersal of sediment plumes from

dredging operations, potentially making contaminants more bio-available if dredging were done in those months. However, it must be noted that there is relatively high recreational boat traffic on Ft. Loudoun Reservoir every summer weekend.

In September, flows through the Ft. Loudoun Reservoir (and accompanying water velocities) are higher as upstream reservoirs are drawn down to provide storage for runoff from winter storms. Fall drawdown begins immediately after Labor Day and continues through the end of November. Water from inflows and upper tributaries is passed through Ft. Loudoun during September.

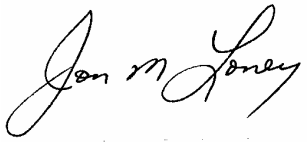
Consequently, TVA concludes that maintenance dredging during the mid-June to late August period is expected to only temporarily impact water quality. As concluded in the previous assessments, some disturbance and displacement of aquatic life, including bottom-dwelling organisms, would occur. Because the dredge sites are adjacent to the disposal sites and generally subject to the same sources of contaminants, and because materials at the respective dredge and disposal sites are substantially similar, effects on aquatic life are still expected be minor and insignificant. Populations of such organisms would be expected to recover quickly. Cleaner areas at both sites would still probably have high zinc loading, but TVA believes that common native aquatic species have adapted to these habitat conditions. The reasonable precautions (see Mitigation Section below and previous FONSIs), which the USACE will take to minimize the spread of contaminants beyond the immediate disposal area, will further minimize effects on aquatic biota. It is possible that the work may be completed before the beginning of the Ft. Loudoun Reservoir fall drawdown (Labor Day) in which case the impacts would be even further minimized.

Mitigation

The USACE will utilize routine measures to protect water quality and aquatic habitat during dredging operations. This includes use of Best Management Practices, as appropriate, for any land based activities. Work will be conducted during relatively low flows using a clamshell dredge and split-hull barge to minimize the downstream dispersal of any fine-grained dredged material. Mitigation measures to minimize impacts to water quality have also been specified in the Section 401 Water Quality Certification (Aquatic Resources Alteration Permit) issued by the Tennessee Department of Environment and Conservation, Division of Water Pollution Control, on December 4, 2003.

Conclusion and Findings

Based on the above analysis, we conclude that changing the timing of maintenance dredging of the Tennessee River at TRM 643.0 and 631.8 and disposal of the spoil material in the designated nearby areas in the reservoir would not be a major federal action significantly affecting the environment. The previous FONSIs are still valid. Accordingly, an environmental impact statement is not required.



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Fort Loudoun Dredge Reevaluations.doc

Date Signed